



Pocket Stove



What It Is:

A Pocket-Sized Heat Source...This small, lightweight stove burns battlefield fuels — so soldiers can heat water quickly and safely for their beverages, dehydrated rations and limited personal hygiene.

Why It's Needed:

Soldiers in the field have no effective means of heating water. At least a pint of hot water is needed to reconstitute dehydrated rations. The Meal, Ready-to-Eat (MRE) provides a chemical heater for the entrée, but not for beverages. The fuel bars now in use have systemic supply problems and can produce noxious fumes when burned. Commercial camp stoves are too expensive, large and heavy for infantry use, produce too much heat, and cannot reliably burn diesel fuel.

How It Works:

To operate the stove, soldiers first add an ounce of fuel that is stored in a small reusable container. The fuel is ignited using a match from the MRE. A canteen cup, part of the soldier's standard issue, is filled with water and placed in a stand over the stove. The fuel burns for about 10 minutes, heating 16 ounces of water by 100° F. The stove cools within a few minutes and can be packed and stowed.

Benefits:

Logistic Support...The pocket stove burns battlefield fuels (JP-8 and diesel) cleanly and safely. Special hardware lets soldiers transfer fuel from 5-gallon cans.

Compact Design...Weighing less than 4 ounces, the stove collapses for stowing in a backpack pocket or canteen cover.

Low Cost...The estimated price is just \$14 per stove.

Technology Base...The technology used in the pocket stove could be applied to other small heat-driven devices, such as personnel warmers, lanterns, generators and infrared markers.

Point of Contact:

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